



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,240	09/11/2003	Tatsufumi Kusuda	P/1250-260	6824
2352	7590	11/16/2004	EXAMINER	
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			FUQUA, SHAWNTINA T	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/661,240	KUSUDA ET AL.	
	Examiner	Art Unit	
	Shawntina T. Fuqua	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 1, 3, 5-8, 11-13,
- 4) ☒ Claim(s) 17-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3, 8 and 11 is/are allowed.
- 6) ☒ Claim(s) 5, 12, 13 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5, 12-13, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moto et al (US6167194) in view of Arai et al (US4571486) and Camm et al(US6594446).

Moto et al discloses a susceptor for holding a substrate comprising a flat receiving surface (13), a tapered peripheral edge (13a) wherein the lower edge of the tapered surface is attached to the peripheral edge of the receiving surface (Figures 3, 5, 6) and the tapered surface is formed upwardly with a gradient between 5-30 degrees (column 6, lines 30-35), a plurality of lamps (101), a chamber (100), and a second tapered surface (14) annularly enclosing the peripheral edge of the first tapered surface wherein the second gradient is larger than the first gradient (Figures 3, 5, 6). Moto et al does not disclose flash lamps, an assistive heater in the holder for preheating the substrate, and flash lamps that heat to 1000 degrees Celsius. Arai et al discloses flash lamps (3) and an assistive heater in the holder for preheating the substrate (column 3, lines 33-38), and Camm et al discloses flash lamps which heat to 1000 degrees Celsius (column 13, lines 45-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced the halogen lamps of Moto et al with the flash lamps of Arai et al and to have included the assistive heater of Arai et al as well as the 1000

Art Unit: 3742

degrees Celsius temperature via flash lamps of Camm et al in the holder of Moto et al because, flash lamps and an assistive heater wherein the temperature is 1000 degrees Celsius allow the substrate to be heated more uniformly.

3. Claim 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moto et al in view of Arai et al and Camm et al as applied to claims 17 above, and further in view of Lee et al (US6519417).

Moto et al in view of Arai et al and Camm et al discloses all of the recited subject matter except a tapered surface which allows the substrate to slide up along the tapered surface as the substrate expands without restricting expansion of the substrate. Lee et al discloses a tapered surface which allows the substrate to slide up along the tapered surface as the substrate expands without restricting expansion of the substrate (30; column 4, lines 7-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the tapered surface of Lee et al in the apparatus of Moto et al because, the tapered as disclosed in Lee et al acts as a wafer guide.

Allowable Subject Matter

4. Claims 1, 3, 8, and 11 are allowed.

5. Claims 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record neither discloses nor suggests an inclined surface with an average surface roughness not more than 1.6 micrometers.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 3, 5-8, 11-13, and 17-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

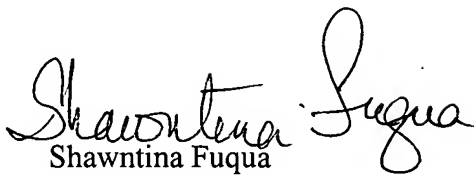
Art Unit: 3742

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawntina T. Fuqua whose telephone number is (703) 305-2581. The examiner can normally be reached on Monday-Friday 8-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (703) 305-2581. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

stf
November 1, 2004


Shawntina Fuqua
Patent Examiner
Art Unit 3742